

ANTOVIL', A.M.

Cataloging friction losses resulting from setting in motion masses and
forces. Trudy Sem.teor.mash. 12 no.47:39-45 '52. (MLBA 6:6)
(Kinematics) (Friction)

ZINOV'YEV, Vyacheslav Andreyevich; ANTOVIL', A.M., retsenzent; LITVIN,
F.L., retsenzent; MEYNGARD, S.A., red.; BRUDNO, K.F., tekhn.red.

[Theory of mechanisms and machinery] Kurs teorii mekhanizmov i
mashin. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1960. 431 p.
(MIRA 14:1)

(Mechanical engineering)

BOBROV, L.; VASILEVSKIY, V.; VLASOV, L.; DRAGUNOV, E.; KAPUSTINSKAYA, K.;
KARELIN, V.; LOSHCHILOV, G.; MAKARENIA, A.; MEDVEDEV, Yul.;
ROMAN'KOV, Yu.; SENCHENKOVA, T.; SENCHENKOV, A.; TRIFONOV, D.;
ANTOYUK, L., red.; LESHCHINSKAYA, G., tekhn. red.

[Journey into the land of the elements] Puteshestvie v stranu
elementov. [By] L. Bobrov i dr. Moskva, "Molodaya gvardiya,"
1963. 366 p. (MIRA 16:10)

(Chemical elements)

USSR/Human and Animal Physiology. The Nervous System

T-12

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65759

Author : Lysov A.M., Antreyev M.N., Panin B.V.

Inst : -

Title : A Study of Conditioned Motor-Food Reflexes in Sheep

Orig Pub : Fiziol. zh. SSSR, 1956, 42, No 11, 997-1001

Abstract : By using a photoelectric recorder, a description and plan of which are included in the paper, reflex latent period, number of turns to the feeder and the time the animal spent at the feeder are all read from a kymograph strip. The arrangement of the sound-proof chamber and control panel are also described.--I.A. Slavutskaya

Card : 1/1

ACCESSION NR: AP4020923

8/0051/64/016/002/0208/0215

AUTHOR: Antrosov, Ys.T.; Sobolev, N.N.; Cheremisinov, V.P. (Deceased)

TITLE: Experimental determination of the matrix element of the dipole moment of electron transitions associated with the Beta and Gamma bands of nitric oxide. Part I.

SOURCE: Optika i spektroskopiya, v.16, no.2, 1984, 208-215

TOPIC TAGS: dipole moment matrix element, transition intensity, oscillator strength, nitric oxide, nitric oxide absorption, nitric oxide gamma band, molecular absorption spectrum

ABSTRACT: The intensity of emission and absorption lines is determined by the probability for the corresponding transition which, in principle, depends on the Einstein coefficients. However, in many cases, instead of the Einstein coefficients, it is more convenient to use some other parameter: the oscillator strength, lifetime of the upper state or the square of the matrix element of the dipole moment of the transition. Accordingly, in the present work, for the purpose of determining the values of the square of the matrix element, R_0^2 , of the dipole moment of the corresponding transitions, there were measured the integral absorption coefficients

Cord 1/2

ACCESSION NR: APL020923

(C) of the γ bands of nitric oxide in the 2300 to 2600 Å region by means of quartz prism KS-55 spectrograph with a dispersion of 2-2.5 Å/mm in the indicated region. The nitric oxide NO was heated in an electric furnace to temperatures from 350 to 900°C. To minimize apparatus errors in determining α the NO lines were broadened by introduction of argon ~~xxxxx~~ at 13 to 20 atm into the sealed tubes containing the NO. The results of processing the spectra, i.e., the values of α , R_0^2 , and f_0 for the $\gamma(0,0)$, $\gamma(0,1)$ and $\gamma(0,2)$ absorption bands of NO are tabulated. The values of the square of the matrix element for the transitions corresponding to the above bands are 0.018, 0.026 and 0.036 atomic units, respectively. The results for the bands of the β system and for higher order γ bands, obtained by a somewhat different procedure, will be described in the next paper. "The authors are grateful to S.A. Losev for aid in procuring the nitric oxide and for valuable consultations." Orig.art.has: 5 formulas, 6 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 11Jun63

DATE ACQ: 02Apr64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 013

Card 2/2

ANTROPIUS, Karel, inž.

Analytic expression of stress-strain diagrams of patented wires. Stav
cas 12 no.2:112-122 '64.

1. Stavebni ustav, Ceske vysoke uceni technicke, Praha.

ANTROPOV, A.

A faulty design. Mashinostroitel' no.10:46 0 '62.
(MIRA 15:10)

(Chucks)

KAGAN, Ya.M.; KAMALOV, R.R.; ANTROPOV, A.D.; KNYSHENKO, G.N.

Density of the gas oil mixture in the annular space of wells
equipped with sinking centrifugal pumps. Neftoprom. delo
no.8:14-17 '64. (MIRA 17:12)

1. TSekh nauchno-issledovatel'skikh i proizvodstvennykh rabot
neftepromyslovoye upravleniya "Aksakovneft".

ANTROPOV, A.D.

Exploitation of flowing wells drilled in bed D₁ of the Shkapovo
oil field using sinking centrifugal pumps. Nefteprom. delo no.3:14-
15 '65. (MIRA 18:10)

1. Oiprotyumenneftegas.

L 42927-66 EWT(m)/EWP(j)/T/EWP(k)

RM

ACC NR: AP6017082

(A)

SOURCE CODE: UR/0317/66/000/001/0070/0071

AUTHOR: Guk, V. (Engineer; Lieutenant colonel); Antropov, A. (Engineer); Zamoruyeva, V. (Engineer); Pankova, K. (Engineer)

ORG: None

TITLE: Sealing of insulated cables

SOURCE: Tekhnika i vooruzheniye, no. 1, 1966, 70-71

TOPIC TAGS: electric cable, hermetic seal, insulating material

ABSTRACT: A method of sealing insulated cable ends against the entrance of moisture is discussed. The method is applied to cable kept in warehouses or stored under field conditions. The cable ends are hermetically closed by the insulation enclosing the cable. For this purpose, the bare conductor ends are cut off while the insulation is heated, softened, stretched and pressed together by pliers. The application of this method to various types of cable is described including single, twin and duplex cables with polyvinyl-chloride insulation; twisted-pair stranded conductors with polyethylene insulation; four-wire and multi-pair field cables with wire armor and rubber sheath jacket; multi-conductor field cables and cords with polyvinyl-chloride plastic insulation. The effectiveness of this method is proven by an 18-day underwater test.

SUB CODE: 09/ SUM DATE: None

Card 1/1 MLP

MALKIN, Ya.Z.; SMIRNOV, M.P.; SERGIYENKO, V.Ya.; KOZREVNKOVA, G.I.;
KALNIN, Ye.I.; TARKHOV, N.G.; Prinizali uchastiye: MURSAITOV, Kh.I.;
ABDUGAPAROV, Sh.A.; BOVGUTA, I.D.; TKACHEV, S.P.; FILATOV, N.V.;
SVISTEL'NIKOV, A.M.; PRACHEV, V.N.; SHEYMAN, V.I.; ANTROPOV, A.D.;
SOBOLEV, Ye.D.; POPOVA, N.T.

Industrial testing of a new continuous method of copper removal
from crude lead. TSvet. met. 34 no. 2.15-22 Mr 161. (MIRA 14:3)

1. Eksperimental'nyy tsekh Chimkentskogo svintsovogo zavoda (for
Mursaitov, Abdugaparov, Bovguta, Tkachev, Filatov, Svistel'nikov,
Prachev, Sheyman, Antropov, Sobolev, Popova).
(Lead—Metallurgy) (Copper)

АНТРЕПОВ, А.О., инж.

Apparatuses for the heat treatment of fabrics. Tekst.prom. 18
no.10:39-40 0 '58. (MIRA 11:11)
(Drying apparatus--Textile fabrics) (Textile finishing)

ANTROPOV, A. [M.]

Plywood Kombinat

SO: T. I. No. 52614, 52616-18 on file in L of C, Air

Leninskoye Onarya (Petrozavodsk 25 July 1947)

ANTROPOV, A.M.

For the development of industrial production of yarn on a large
scale. Tekst.prom.14 no.1:13-14 Ja '54. (MLRA 7:2)

1. Zamestitel' nachal'nika Glavsagotl'noproma. (Hemp) (Flax)

АНТРОПОВ, А.М.

Northern Caucasus as an important source of bast fiber. Tekst.
prom. 14 no.7:13-14 J1 '54. (MIRA 7:8)

1. Samestitel' nachal'nika Glavzagotl'noproma.
(Caucasus, Northern--Bast) (Bast--Caucasus, Northern)

ANTROPOV, A.M.

Ministerstva legkoy promyshlennosti SSSR. Nauka i pered. op. v
sel'khoz. 7 no.4:8-11 Ap '57. (MIRA 10:6)

1. Zamestitel' nachal'nika upravleniya tekstil'nogo syr'ya Mini-
sterstva legkoy promyshlennosti SSSR.
(Flax)

ANTOVIL', Aleksandr Maksimovich; OVSYANNIKOVA, Z.G., red.; YEZHOVA,
L.L., tekhn. red.

[Theory of mechanisms and machinery] Teoriia mekhanizmov i
mashin; kratkii kurs. Moskva, Gos. izd-vo "Vysshiaia shkola,"
1961. 253 p. (MIRA 15:2)
(Mechanical movements) (Mechanical engineering)

BASHARKIN, L.D.; ANTONOV, A.N.; KUSOV, N.I.; DYUKOV, A.I.; SPERANSKIY, M.A.; KRYTER, B.M., glavnyy red.; SHATALOV, Ye.T., zamestitel' glavnogo red.; YEROFEEV, B.N., red.; ZENKOV, D.A., red.; KRASNIKOV, V.I., red.; NIFONTOV, R.V., red.; SMIRNOV, V.I., red.; KHEISHCHOV, N.A., red.; YAKZHIN, A.A., red.; KHEIPELOV, V.Ye., red.; BEREZOVSKAYA, L.I., red. izd-va; PENKOVA, S.A., tekhn. red.

[Prospecting for coal and oil shale deposits] Razvedka mestorozhdenii uglei i goriuchikh slantsev. Moskva, Gos. nauchn.-tekhn. izd-vo lit-ry po geologii i okhrane neдр, 1957. 61 p. (Metodicheskie ukazaniya po proizvodstvu geologo-razvedochnykh rabot, no.9).

(Coal—Geology) (Oil shales)

(MIRA 11:4)

ANTROPOV, A.N.

Aldan (South Yakut) coal basin. Sov. geol. no.62:92-126 '57.

(MIRA 11:6)

(Aldan Basin--Coal geology)

MUSATOV, T.F., inzh. ANTROPOV, A.P., inzh.

Organization of the operation of complex electric power plants.
Elek. sta. 36 no.9:72-74 S '65. (MIRA 1819)

1. Glavnoye upravleniye energeticheskogo khozyaystva Donetskogo
kraiya (for Musatov). 2. Kalininenergo (for Antropov).

ANTROPOV, A.V.

~~SECRET~~
Use of motorcycles in topographical and geodetic surveys. Geod. i
kart. no.4:77 Ap '57. (DLRA 10:8)

1. Starshiy topograf otryada No.12 Moskovskogo aerogeodesicheskogo
predpriyatiya.

(Topographical surveying)

ANTROPOV, A.V.; POLOTSKIY, I.L., inzh.

New drilling chucks. Izobr.v SSSR 2 no.10:37-38 0 '57. (MIRA 10:11)
(Chucks)

ANTROPOV, A.V.

Using antifriction parts in clamping mechanisms. Mashinostroitel'
no.12:18 D '61. (MIRA 14:12)
(Vices... Technological innovations)

ANTROPOV, A.V.

New dial center finder. Mashinostroitel' no.8:23 Ag '62.
(Recording instruments) (MIRA 15:8)

ANTROPOV, Aleksandr Vladimirovich; GUROV, S., red.; KUZNETSOVA, A.,
tekhn. red.

[Advice to boring machine operators] Sovety rastcechniku. Moskva,
Mosk. rabochii, 1962. 58 p. (MIRA 16:1)
(Drilling and boring)

ANTROPOV, A.V.

Changeable marking center with a hard-alloy tip.
Mashinostroitel' no.11:23 N '62. (MIRA 15:12)
(Drilling and boring machinery—Attachments)

ANTROPOV, A.V.

Boring chucks. Mashinostroitel' no.2:25 F '63.
(Chucks)

(MIRA 16:3)

ANTROPOV, Aleksandr Vladimirovich, zasl. izobretatel' RSFSR,
iskusstvennyy tokar'-rastochnik; BRYZGALOV, I., red.

[Machining on jig-boring machines] Rabota na koordinatno-
rastochnykh stankakh. Moskva, Mosk. rabochii, 1964. 76 p.
(MIRA 17:11)

1. Chlen soveta novatorov Moskovskogo gorodskogo soveta na-
rodnogo khozyaystva (for Antropov).

ANTROPOV, Boris Fedorovich; TRUSIKHIN, Nikolay Pavlovich; MAKSIMOV,
A.A., red.; BOHYLEVA, L.V., red.; GERASIMOVA, Ye.S., tekhn.
red.

[Improve planning in an enterprise] Sovershenstvovat' planiro-
vanie na predpriatii. Moskva, Ekonomizdat, 1962. 77 p.
(MIRA 15:12)

(Industrial management)

AUTHOR: Gutkin, Ye.S., and Antropov, B.G.

132-12-9/12

TITLE: About Measures to Be Taken Against Well Deviation at Shot Drilling (K voprosu o merakh bor'by s iskrivleniyem skvazhin pri drobovom burenii)

PERIODICAL: Razvedka i okhrana nedr, 1957, # 12, p 56-57 (USSR)

ABSTRACT: To overcome well deviation at shot drilling, the Cheremukhovo Geologic Prospecting Team conducted experiments at north Ural bauxite deposits. By changing the direction of rotation, the angles of deviation were reduced and drilling efficiency increased. The article contains a table showing comparative data of drilling operations in two and one directions. There are 2 diagrams, 1 table and 3 references, all Slavic (Russian).

ASSOCIATION: North Ural Bauxite Expedition (Severoural'skaya boksitovaya ekspeditsiya)

AVAILABLE: Library of Congress

Card 1/1

KAPUSTIN, Ye.I., kand.ekon.nauk; LAVROV, V.V.; RYUMIN, S.M.; KONSTANTINOV, Yu.A.; PRAVDIN, D.I., kand.ekon.nauk; KIRILLOVA, E.I.; RIMASHEVSKAYA, N.M.; ANTIPOV, B.F.; RYABKOV, F.S.; POPOV, G.A.; DEM'YANOVA, V.A.; SMOIAR, I.M.; ACHARKAN, V.A., kand. yurid.nauk; BRONER, D.L.; SHEPTUN, Ye.V.; KRYAZHEV, V.G.; ALESHINA, F.Yu., kand. ekon. nauk; KUZNETSOVA, N.P.; MARKOVICH, M.B.; BIBIK, L.F.; BUDARINA, V., red.; GRIGOR'YEVA, I., mladshiy red.; CHEPELEVA, O., tekhn. red.

[Public consumption funds and improving the welfare of the people in the U.S.S.R.] Obshchestvennye fondy i rost blagosostoianiia naroda v SSSR. Moskva, Sotsekgiz, 1962. 222 p. (MIRA 15:6)

(Cost and standard of living)

123-1-489
Translation from: Referativnyy Zhurnal, Mashinostroyeniye, 1957,
Nr 1, p.81 (USSR)

AUTHOR: Antropov, B.P.

TITLE: New Design of Sprinklers for Cooling Pipes (Novaya
konstruktsiya bryzgal dlya okhlazhdeniya trub)

PERIODICAL: Sbornik rats. predlozh. vnedr. v proiz-vo. M-vo
chernoy metallurgii SSSR, 1955, Nr 52, p. 27.

ABSTRACT: Bibliographic entry

Card 1/1

ANTROPOV, O.A.

Foreign body in the nasal cavity. Vest. oto-rin. 18 no.1:65-66
Ja-F '56. (MLRA 9:6)

1. Is kafedry bolezney ukha, gorla i nosa (zav.-chlen-korrespondent
AMN SSSR prof. V.F. Undrits) I. Leningradskogo meditsinskogo
instituta imeni I.P. Pavlova.

(NASAL CAVITY, foreign bodies
knife splinter, surg.)

(FOREIGN BODIES
knife splinter in nasal cavity, surg.)

ANTROPOV, G.A.

Role of the central part of the auditory analyzer in the mechanism of auditory adaptation. Probl.fiziol.akust. 4 :16-23 '59.

(MIRA 13:5)

1. Kafedra bolezney ukha, gorla i nosa 1-go Leningradskogo meditsinskogo instituta im. I.P. Pavlova i Laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii im. I.P. Pavlova AN SSSR, Leningrad.

(HEARING)

ANTROPOV, G. A.

Cand Med Sci - (diss) "Comparative-physiological analysis of inhibition caused by the mechanical irritation of the brain. (Materials on the pathophysiology of experimental muscle dystonia)." Leningrad, 1961. 19 pp; (First Leningrad Medical Inst imeni Academician I. P. Pavlov); 300 copies; price not given; (KL, 5-61 sup, 200)

ANTROPOV, G.A.

Use of a graphic method for the analysis of autonomic reactions.
Fiziol.zhur. 48 no.6:760-762 Je '62. (MIRA 15:8)

1. Laboratoriya sravnitel'noy fiziologii i patologii Instituta
eksperimental'noy meditsiny AN SSSR, Leningrad.
(NERVOUS SYSTEM, AUTONOMIC) (CONDITIONAL RESPONSE)

BIRYUKOV, D.A.; ANTROPOV, G.A.; KLIMOVA-CHERKASOVA, V.I.; KORNEVA, Ye.A.;
SHLYAFER, T.P.; YAKOVLEVA, M.I.

Comparative and physiological features of the effect of aminazine on the regulation of cardiovascular activity. Fizio. zhur. 48 no.8:953-959 Ag'62. (MIRA 16:6)

1. From the Laboratory for Comparative Physiology and Pathology,
Institute of Experimental Medicine, Leningrad.
(CARDIOVASCULAR SYSTEM) (CHLORPROMAZINE)

ANTROPOV, G.A.; KLIMOVA-CHERKASOVA, V.I.; KORNEVA, Ye.A.; SHEL'YAFER,
T.P.; YAKOVLEVA, M.I.

Comparative physiological characteristics of the effect of
aminazine on the regulation of cardiovascular activity.
Trudy Inst. klin. i eksper. kard. AN Gruz. SSR 8:533-535
'63. (MIRA 17:7)

1. Laboratoriya sravnitel'noy fiziologii.

ANTROPOV, G.A.

Changes in cardiac activity following mechanical stimulation
of the brain. Biul. eksp. biol. i med. 54 no.9:18-21 S '62.

(MIRA 17:9)

1. Iz laboratorii sravnitel'noy fiziologii i patologii Instituta
eksperimental'noy meditsiny (dir.- deystvitel'nyy chlen AMN SSSR
D.A. Biryukov) AMN SSSR, Leningrad. Predstavleno deystvitel'nyy
chlenom AMN SSSR S.V. Anichkovym.

ANTROPOV, G.A.

Table for the determination of basic ECG indices in rabbits.
Biol. eksp. biol. i med. 59 no.2:115-118 F '69.

(MIRA 18:7)

1. Moskovskiy nauchno-issledovatel'skiy institut gigiyeny imeni
Erismana (dir. A.P. Shitskova).

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APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0"

GORSHKOV, Sergey Il'ich; ANTROPOV, Gennadiy Andreyevich; GORBUNOV,
Oleg Nikolayevich; GODIN, V.P., red.; LANDAU-TYLKINA,
S.P., red.

[Biological action of ultrasound] Biologicheskoe deistvie
ul'trazvuka. Moskva, Meditsina, 1965. 196 p.
(MIRA 18:12)

ACC NR: AM0011001

Monograph

UR

Gorshkov, Sergey Il'ich; Antropov, Gennadiy Andreyevich; Gorbunov, Cleg Nikolayevich

Biological effect of ultrasound (Biologicheskoye deystviye ul'trazvuka) Moscow, Izd-vo "Meditsina", 1965. 196 p. illus., biblio. 3000 copies printed.

TOPIC TAGS: ultrasonics, ultrasonic biologic effect, industrial hygiene, industrial medicine, safety engineering

PURPOSE AND COVERAGE: The biological effects of ultrasound, particularly of low frequency, are considered for a variety of circumstances. The author attempts to systematize preexisting foreign and Soviet data, as well as his own investigations, to indicate solutions to the important problems in this field. All types of exposure to ultrasound are considered, including therapeutic, industrial, and experimental exposures. Dosimetry is discussed, as is the need for establishment of definitive hygienic norms for exposure. The book should be useful to a wide variety of biologists, medical specialists (hygienists and therapists), scientific works, and safety engineers.

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UDC: 612.014.45+613.644

ACC NR: AM6011891

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Cord 2/3

ACC NR: AM6011891

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SUB CODE: 06/ SUBM DATE: 19Oct65/ ORIG REF: 114/ OTH REF: 126

Cord 3/3

L 05199-67 ENT(d)/EWP(h)/EWP(1)
ACC NR: AP6012133 (A)

SOURCE CODE: UR/0415/66/000

AUTHORS: Komissarov, A. F.; Antropov, G. P.

ORG: none

TITLE: An automatic grip. Class 35, No. 180320

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 52

TOPIC TAGS: hoisting equipment, automatic machine, automatic equipment

ABSTRACT: This Author Certificate presents an automatic grip for lifting and carrying loads. The grip contains a casing with hooks hinged onto it through drawbars. It is connected to the power cylinder and to a stopping device mounted in the case, fixing the position of the grasping hooks (see Fig. 1). To maintain the hooks of the grip in the open position when carrying no load, the piston shaft of the power cylinder is hollow and has an opening connected to the working interior of the cylinder. This shaft is attached to a movable frame mounted in the casing. The frame is held by a plunger placed in the hollow shaft. The frame activates the stopping device.

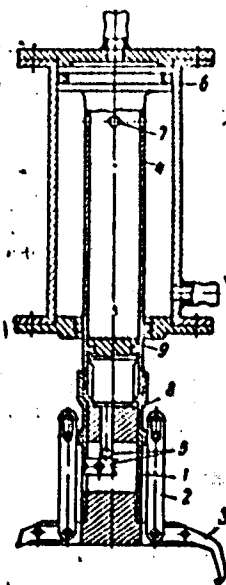
Cord 1/2

UDC: 621.86.061.3

L 05199-67

ACC NR: AP6012133

Fig. 1. 1 - grip casing; 2 - drawbar; 3 - grip hooks; 4 - shaft of the power cylinder; 5 - stopping device; 6 - power cylinder; 7 - opening; 8 - movable frame; 9 - plunger.



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 06Jun63

Card 2/2 vrb

ANTROPOV, G. M., BELYEV, V. A. and ROMANOVSKIY, M. K.

"The Behavior of Rapid Electrons in an Electron Model of a Trap with Magnetic Mirrors." (Work carried out in 1957); pp. 250-258.

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. III. 1958, published by Inst. Atomic Energy, Acad. Sci. USSR.

Available in Library.

SOV/89-5-4-9/24

AUTHORS: Antropov, G. P., Zysin, Yu. A., Kovrizhnykh, A. A., Lbov, A. A.

TITLE: Reaction Cross Section $U^{238}(n,2n)U^{237}$ With Neutrons of an Energy of 15 MeV (Secheniye reaktsii $U^{238}(n,2n)U^{237}$ na neytronakh s energiyey 15 Mev)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 4, pp 456-457 (USSR)

ABSTRACT: In 1952 σ was measured by the authors for $U^{238}(n,2n)U^{237}$ for $E_n = 15$ MeV as amounting to 1.5 ± 0.2 b. As, in the meantime, new values have been published which are in contradiction to those mentioned, measurement was repeated in 1957. A 4 π -counter was used for measuring. The value $\sigma_{n,2n}$ was measured from the activity of U^{237} and from the fission products of U^{238} , namely Mo^{99} , Ba^{140} , Ce^{141} . A value of 0.90 ± 0.15 b was obtained by these measurements. This is in agreement with the value given in reference 1, but in strict contradiction of the value given in reference 2. Comparison with the results given in reference 4 leads to the conclusion that the value of 0.90 b is highly probable.

Card 1/2

SOV/89-5-4-9/24

Reaction Cross Section $U^{238}(n,2n)U^{237}$ With Neutrons of an Energy of 15 MeV

N. P. Martynov, T. P. Timofeyeva, and N. V. Shuvanova participated in the work of chemical preparation. There are 4 references, 2 of which are Soviet.

SUBMITTED: April 17, 1958

Card 2/2

ANTROPOV, G.P.; ZYSIN, Yu.A.; KOVRIZHNYKH, A.A.; TSAREV, V.P.

Fast neutron spectrometer. Prib. i tekhn. eksp. 6 no.4:30-33
Jl-Ag '61. (MIRA 14:9)

(Spectrometer)

ANTROPOV, G. Ye.

Apr 49

USSR/CHEMISTRY - ARGININE
METHANOL, SOLUTIONS

"The Effect of Arginine on the Equilibrium of Methanol Solutions of NaI - KI," A. G. Sarkisov, N. F. Sakharova, G. Ye. Antropov, Lab of Gen Chem, Kuybyshev Incl Inst, 5 $\frac{1}{2}$ pp

"Zhur Obshch Khim" Vol XIX, No 4

Investigation of the effect of arginine at 30° determined that the solubility of NaI, KI, and their mixtures is less in the presence of the arginine than it is in pure methanol. Submitted 23 Dec. 47.

PA 65/49T16

ANTROPOV, I.A.

New species of Foraminifera in upper Devonian deposits of regions
of the eastern Russian Platform. Izv.Kazan.fil.AN SSSR.Ser.geol.nauk
no.1:21-33 '50. (MLRA 10:1)
(Russian Platform--Foraminifera, Fossil)

OBRUCHEV, V.A., akademik; ANTROPOV, I.A.

Discoveries of nematopora and other sea-mosses from the Devonian period
on the eastern Russian Platform. Dokl.AN SSSR 91 no.3:613-615 J1 '53.
(MLRA 6:7)

1. Geologicheskii institut Kazanskogo filiala Akademii nauk SSSR (for
Antropov). 2. Akademiya nauk SSSR (for Obruchev).
(Russian Platform--Polyzoa, Fossil) (Polyzoa, Fossil--Russian Platform)

15-1957-1-71

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,
p 9 (USSR)

AUTHOR: Antropov, I. A.

TITLE: Cupressocrinus Fossils and Their Stratigraphic
Significance in the Devonian of the Volga-Ural
Oil Region (Ob ostatkakh Cupressocrinus i ikh
stratigraficheskom znachenii v devone Volgo-Ural'skoy
neftenosnoy oblasti)

PERIODICAL: Izv. Kazan. fil. AN SSSR, Ser. geol. n., 1954, Nr 2
pp 12-16

ABSTRACT: Bibliographical entry

Card 1/1

ANTROPOV, I.A.

Devonian Foraminifera in the Tatar A.S.S.R. Izv. Kazan. fil. AN
SSSR. Ser. geol. nauk no. 7:11-33 '59. (MIRA 14:4)
(Tatar A.S.S.R.—Foraminifera, Fossil)

ANTROPOV, I.A.

Devonian reef facies in the central Volga-Kama region. Izv. Kazan.
fil. AN SSSR. Ser. geol. nauk no. 7:35-46 '59. (MIRA 14:4)
(Volga Valley—Reefs)

ANTROPOV, I.A.; BAIANOVA, G.P.

Devonian stratigraphy of eastern Tatarstan. Trudy Kazan. fil.
AN SSSR Ser.geol.nauk no.6:7-88 '80. (MIRA 15:4)
(Tatar A.S.S.R.--Petroleum geology)

ANTROPOV, I.A.

Recent data on the stratigraphy of Tournaisian deposits in
Tatarstan. Dokl. AN SSSR 142 no.6:1351-1354 F '62.

(MIRA 15:2)

1. Geologicheskiy institut Kazanskogo filiala AN SSSR.

Predstavleno akademikom Yu.A.Orlovym.

(Saitovo Region--Geology, Stratigraphic)

ANTROPOV, K.N.; KAZAKOV, Yu.I.

Noncontact copying system for cutting gear wheels. Stan. 1 instr.
36 no.4:21-22 Ap '65. (MIRA 18:5)

DANILOV, V.I.; CHEREPANOV, K. Ye.; ANTROPOV, K.V., osmotrshchik-avtomatichik;
KHRIPUNOV, V.S., osmotrshchik-avtomatichik; SHASHMURIN, A. Ye.,
osmotrshchik-avtomatichik

Are emergency brake accelerators necessary on freight trains?

Elek. i tepl. tiaga 5 no.3:43 Mr '61.

(MIRA 14:6)

1. Master avtokontrol'nogo stantsii Sverdlovsk-Sortirovochnaya
(for Danilov). 2. Starshiy master punkta tekhnicheskogo osmotra
stantsii Sverdlovsk-Sortirovochnaya (for Cherepanov) 3. Stantsiya
Sverdlovsk-Sortirovochnaya (for Antropov, Khripunov, Shashmurin).
(Railroads-Brakes)

2-1

Time dependence of electrodic polarisation.
 I. Over-polarisation in the discharge of copper
 ions on a copper cathode. O. EASIN, L. ANTONOV
 and A. LEVIN (J. Phys. Chem. Russ., 1937, 9, 269-
 275).—The "overpolarisation" ($\epsilon_m - \epsilon$) observed
 in the deposition of Cu rises to a max. ϵ_m after a certain
 time τ_m and then falls to a const. val. ϵ . ($\epsilon_m - \epsilon$)
 increases with c.d. and decreases with τ_m of temp.
 It increases at first with diminution of [Cu] but later
 becomes constant; it also decreases with increasing
 [Cu²⁺]. ϵ has a max. at a certain val. of c.d. E. R.

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

17

Potentiometric, argentometric titration of halides jointly present in pharmaceuticals. B. P. Mlagireva and L. I. Antropov. *Farmatsiya* 1968, No. 5, 1-9.—An improved method has been developed for detg. Cl, Br and I in presence of each other, whether with or without org. drugs, such as valerian, sugar, Na caffeine salicylate or benazon. For Cl and Br, present together, the argentometric method is accurate within 2%. A sep. potentiometric detn. of Br and I, present together, is accurate to within 1%. An argentometric detn. takes 30-40 min. for a rapid estimate, or 1.5-2 hrs. for an exact detn. ... Julian P. Smith

ASS-11A METALLURGICAL LITERATURE CLASSIFICATION

CA		7
Physicochemical fundamentals of vanadometry. V. N. Syrochinskii and L. I. Antropov. <i>Zhurnal Obshchei Khimii</i> 24(1940).--The normal potential of V^{5+}/V^{4+} was detd. in sulfate soln. The av. value was 1.000 v. as obtained from the following 3 series of detns.: (1) potentiometric titration of vanadate with $FeSO_4$, (2) potentiometric titration of vanadate with hydroquinone and (3) direct measurement of the potential in solns. with a const. ratio of V^{5+}/V^{4+} and varying acidity. The potential is related to the acidity by $E = E_0' + 0.0173 N H_2SO_4$ where $E_0' = 0.97$ v. It is shown that the accuracy of the potentiometric titration within the range under investigation (0.5-30 g. equiv. $H_2SO_4/l.$) does not depend upon the acid content in the soln. Hence the reaction between vanadate and Fe^{2+}, vanadate and hydroquinone, and also probably in other vanadometric detns. is independent of the acidity and follows the same stoichiometric ratios. It was also established that vanadometric titration with phenylanthranic acid gives accurate results only when the acidity of the soln. is not less than 4 N and not over 13.5 N. Within this interval the results of the potentiometric and the ordinary volumetric titrations agree very closely. Phenylanthranic acid is an ideal reduction-oxidation indicator because within the wide interval studied its potential jump did not depend on the acidity of the soln. It was shown that V^{5+} in acid solns. is an ideal oxidizer in potentiometric titrations because of the large jumps in the potential. N. Z. Kamich		
ASD-51A METALLURGICAL LITERATURE CLASSIFICATION		

157 AND 158 (2048)

157 AND 158 (2048)

PROCESSES AND PROPERTIES INDEX

157 AND 158 (2048)

ANTIKORROSION

CA

3

Polarization in ionic oxidation-reduction processes. I. Theory. L. Antropov. *J. Phys. Chem. (U.S.S.R.)* 15, 76 (1941). The equation $i = \frac{a}{b} \left(\frac{1}{1 + \frac{a}{b}} \right)$ where i = current strength, a and b are characteristic constants with b slightly less than unity, is derived for the relation between current and polarization in the case of delayed desorption processes. II. Recharging ions of iron, thallium, cerium and vanadium. L. Antropov and E. Mityeva. *Ibid.* 770 (42). In the case of the reaction $Fe^{2+} \rightarrow Fe^{3+}$, $a = 0.1$, $b = 0.9843$, $q = 15$ at. for $Ce^{3+} \rightarrow Ce^{4+}$, $a = 0.5$, $b = 0.9626$, $q = 27$ at. for $Ce^{3+} \rightarrow Ce^{4+}$, $a = 0.01$, $b = 0.9940$, $V^{2+} \rightarrow V^{3+}$, $a = 0.01$, $b = 0.9840$, $V^{3+} \rightarrow V^{4+}$, $a = 0.10$, $b = 0.9620$, $Fe^{2+} \rightarrow Fe^{3+}$, $a = 0.2$, $b = 0.9620$. The exper. data of Pletcher, *et al.* (C. A. 24, 2391; 25, 1725) are also in accord with the theory developed. F. H. Rathmann

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Handwritten: Thermodynamics

/ Determination of the quantity of heat evolved by the current in an electrolytic bath. L. J. Antropov (Novokuznetsk Polytech. Inst.), *Zhur. Priklad. Khim.* (J. Applied Chem.) 23, 375-6 (1950).—The existing methods of calcn. of the Joule heat Q evolved in an electrolytic bath are reviewed. This is illustrated by the conducting results obtained for the electrolysis of H_2O , under an applied voltage $E = 2$ v., with a current $I = 100$ amp., by 4 different methods: (I) by the heat evolved in surmounting the ohmic resistance, (II) by the difference of the elec. energy and the energy necessary for the reversible chem. decomposn., (III) by the difference of the elec. energy and the energy corresponding to the decomposn. voltage, and (IV) by the difference between the heat equiv. of the elec. energy and heat evolved in bringing back the products (e.g. $2H_2 + O_2$) to their initial state (e.g. $2H_2O$). In the case under consideration, these 4 methods give the conducting $Q = 80, 256, 447, \text{ and } 602 \text{ kcal./hr.}$, resp. By comparison of the work performed in the time interval dt by the elec. current, $dA = IEdt$, and the part of that work, $(A/s)dt$, spent as chem. work, the result $Q = 0.86 I [E - 0.0434 \Sigma (zA/s)] \text{ kcal./hr.}$ is obtained, valid in the presence of several chem. reactions, each taking a fraction z of the current. In the case of electrolysis of H_2O , involving only one reaction, a cycle including diss., electrolysis, formation, and condensation gives the expression $Q = 0.86 I [E - 0.0434 (A_{\text{diss}}/2) - 0.0434 (A_{\text{con}}/2)]$, where A_{diss} is the work of formation of liquid H_2O , and A_{con} the

work of diss. of the alkali. At 25° and at 60° , this gives, numerically, $Q = 0.86 I (E - 1.23)$ and $0.86 I (E - 1.80)$ kcal./hr., resp. For the electrolysis of $NaCl$, at 25 and 60° , $Q = 0.86 I (E - 2.19)$ and $Q = 0.86 I (E - 2.18)$, resp.
N. Thon

ANTROPOV L. I.,

170117

USSR/Chemistry - Electroreduction

Dec 50

"Toward a Theory of the Electroreduction of Organic Compounds," L. I. Antropov, Yerevan Polytech Inst, Chair of Physicochem, Lab of Electrochem, Chem Inst, Acad Sci Armenian SSR

"Zhur Fiz Khim" Vol XXIV, No 12, pp 1428-1436

Expresses fundamentals of theory of electroreduction of organic compounds. In contrast to usual treatment, nature and value of H overvoltage on cathode metal must be considered. Process depends on amount of deviation of cathode potential from zero point due to rate of reaction and velocity of delayed evolution of H.

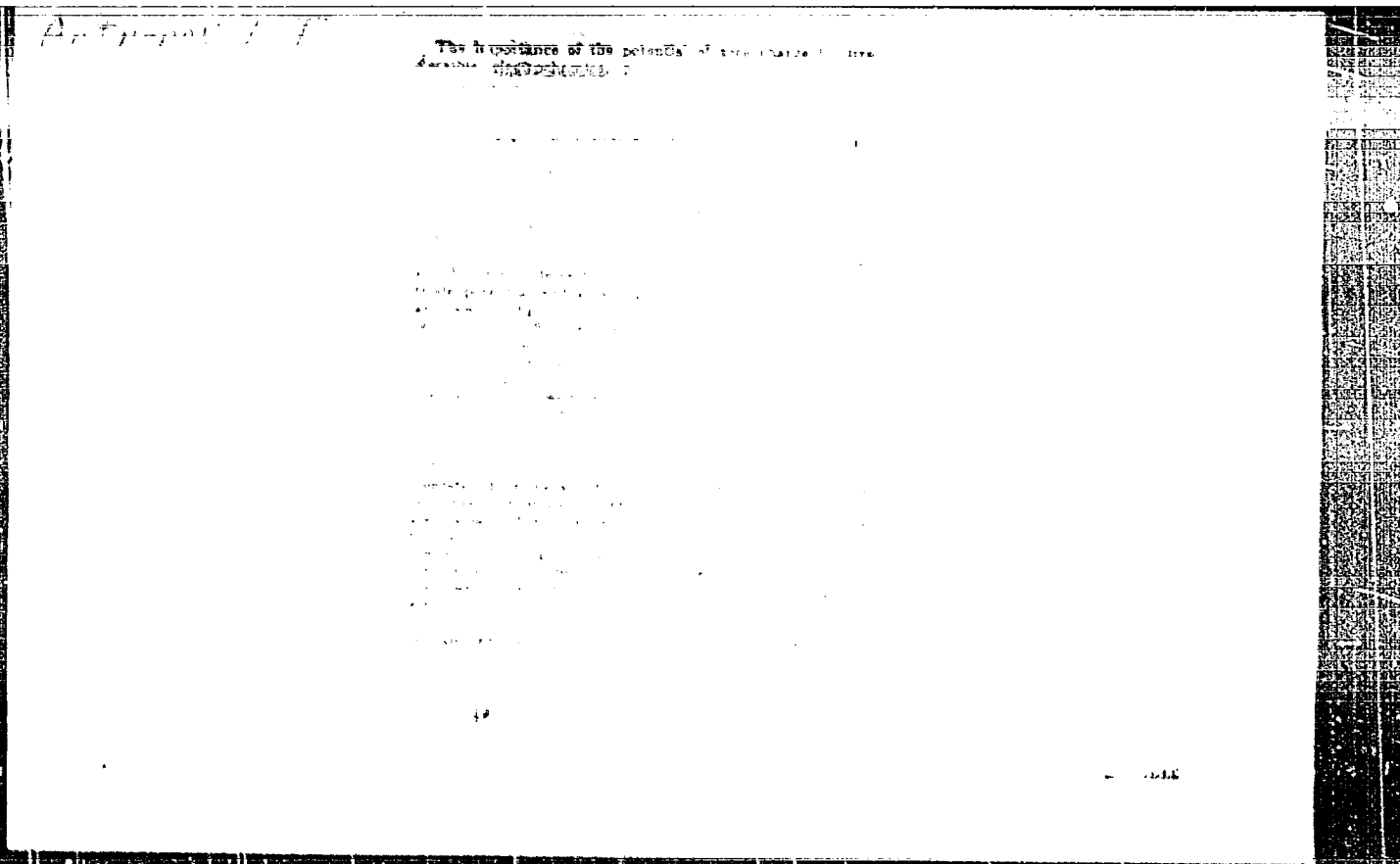
170117

ch

y

Electrolytic reduction of the series nitrobenzene aniline
 I. Antropov and N. T. Vagaryan (Acad. Sci. Armenian
 S.S.R., Yerevan). Zh. Fiz. Khim. 29, 1841 (1955).
 The electrolytic reduction of nitrobenzene (I), nitroaniline
 (II), and phenylhydrazine (III) in ac. 2 N H₂SO₄
 was studied at 25 ± 0.1° in order to
 explain earlier observations (Haber, Z. Elektrochem. 4, 107,
 190 (1900); II and Russ. Z. phys. Chem. 47, 257 (1943))
 and illustrate the theoretical derivations of Antropov (I, 1
 48, 1952). The reference electrode was Hg/Hg₂SO₄, 25 N.
 The cath. equil. potential of I was changed between
 -0.65 and -0.85 v. The current of I between 10⁻⁴ and
 10⁻² amp. With both I and II, at various concns., the data
 show $K = a + b \log I$ (I) and $K = a' + b' (RT/2eF)$ in
 10⁻⁴ to 10⁻² amp. (II) (cf. A., loc. cit.) where K is the cath.
 rate potential, I the cath. current, and b, and b', the rate constants
 for the slow step for I evolution and for reduction, resp.
 The depolarizing action of III depends on the electrode po-
 tential; it disappears when the latter departs from the re-
 verse potential E_0 of smooth Pt. A measure of depolariz-
 ing action is provided by the cath. h/d., for values of K not
 far from E_0 . The data show the following order of depolariz-
 ing action: II, III, I. Far from E_0 , the order becomes II,
 I, III, and reduction of III is practically absent. M. H.

Effect of pH on electrochemical hydrogenation processes.
N. T. Vaganyan and L. I. Antropov (Acad. Sci. Armenian
S.S.R., Yerevan) - *Zh. Fiz. Khim.* 25, 119-25 (1951) -
Except for the work of Tschitt (C. R. 20, 700) there are no
data relative to the effect of pH on the overvoltage during
electrochem. reduction. The latter was investigated for
the reduction of nitrobenzene on two electrodes, Hg and Pt
at small current values (10^{-6} to 10^{-4} amp.). According to
the theory of A. I. C. 43, 534 it becomes possible to de-
cide between the mechanisms of slow H₂ discharge (a) or of
slow formation of H₂ ions (b). The equations of Antropov
are applied to the data. It is concluded that mechanism
(a) is certain at a Hg cathode and that mechanism (b) is very
likely at a Pt electrode. Michel Boudart



USSR/Chemistry - Cathode Reactions

Nov 52

"The Question of the Nature of Cathode Reactions,"
L. I. Antropov, Novocherkassk Polytech Inst in S.
Ordzhonikidze.

"Zhur Fiz Khim" Vol 26, No 11, pp 1688-1693

The author states that those metals most investigated form two groups which differ in their conduct during many electrode processes. Metals of Group I (Pt, Ni, etc.) have these characteristics: (a) the rate of liberation of H is limited by the retarding effect of recombination; (b) the surface concn of H atoms under the current is significantly above the equil concn;

(1)

242T17

(c) the electrolytic H is absorbed by the metal in noticeable amounts; (d) the reduction of org and inorg substances takes place at the expense of adsorbed atoms and of oscillating excited mols of H; (e) the non-polar substances are subjected for the most part to hydrogenation. Metals of Group II (Hg, Zn, etc.) have these characteristics: (a) the rate of H liberation is limited by the retarded flow of the discharge of hydroxonic ions; (b) the surface concn of H atoms under the current is not noticeably different from the equil concn; (c) the electrolytic H is largely absorbed by the metal; (d) the reduction of inorg and org substances is accomplished at the expense of H electrons and ions activated in the discharge

(2)

242T17

process; (e) the polar org compds are subjected for the most part to electroreduction. The author adds that Groups I and II include the metals most widely used in the electrochemical industry.

(3)

242T17

Antropov, L. T.

Function of the Potential of Zero Charge in Irreversible Electrochemical Processes. L. I. Antropov (*Trudy Sovetsk. Akad. Nauk SSSR, Ser. Khim. Nauk* 1967, 1967, 380-383). (In Russian). A method of investigating electrochem. processes is suggested in which the potential of zero charge of the metal is compared with the potentials concerned in the given process (stationary potential, reduction potential, &c.). The method is applied to the consideration of electrodeposition, corrosion, anode reactions, &c.—G. V. L. T.

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0"

ANTROPOL, L. I.

B. T. R.
June 1954
Corrosion

7845* The Influence of pH on Process of Metal Corro-
sion. (Russian.) L. I. Antropov. Zhurnal Fizicheskoi Khimii,
v. 27, no. 11, Nov. 1953, p. 1631-1635.
Tests on Fe, Ni, Zn, and Mg, show corrosion velocity and
potential dependent on pH of the solution. Table. 10 ref.

U S R.

/ Catalytic and electrolytic hydrogenation of organic compounds on platinum I Effect of the nature of the solvent
on the rate of hydrogenation

Compounds were prepared by dissolving $\text{Fe}(\text{OH})_3$ (I), $\text{Fe}(\text{OH})_3$ (II), $\text{Fe}(\text{OH})_3$ (III), water (IV), AlCl_3 (I), AlCl_3 (II), and mixtures of II with IV and III with IV in the presence of a Pt catalyst. Values of K are tabulated and graphed as functions of the dielectric constant ϵ of the medium. The highest K was found in III.

Electrode Processes

Kinetics of Electrode Processes. Influence of Thiourea on the Electrodeposition of Lead.

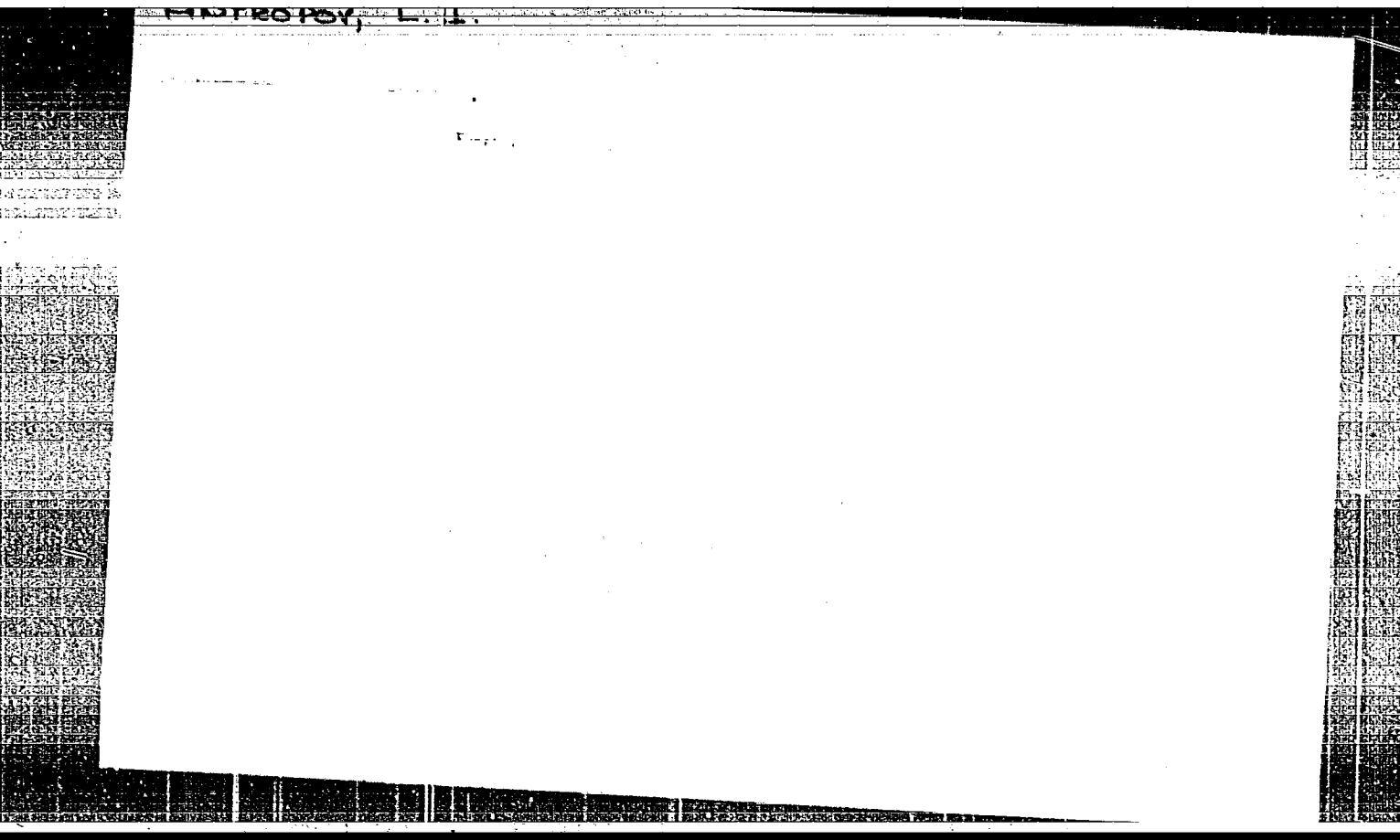
The kinetics of the electrodeposition of lead from a solution of lead acetate in the presence of thiourea was studied. The effect of the concentration of thiourea on the rate of deposition and the morphology of the deposits was investigated. It was found that the rate of deposition increases with increasing concentration of thiourea. The morphology of the deposits changes from a granular to a smooth and compact one. The overpotential of the cathode decreases with increasing concentration of thiourea. The Tafel plots show that the reaction is controlled by the diffusion of lead ions at low concentrations of thiourea and by the charge transfer at high concentrations. The activation energy of the cathodic process was determined. The results show that thiourea acts as a complexing agent for lead ions, forming a stable complex. This complex is reduced at the cathode, leading to the deposition of lead. The rate of deposition is controlled by the diffusion of the complex at low concentrations of thiourea and by the charge transfer at high concentrations. The Tafel plots show that the reaction is controlled by the diffusion of lead ions at low concentrations of thiourea and by the charge transfer at high concentrations. The activation energy of the cathodic process was determined. The results show that thiourea acts as a complexing agent for lead ions, forming a stable complex. This complex is reduced at the cathode, leading to the deposition of lead. The rate of deposition is controlled by the diffusion of the complex at low concentrations of thiourea and by the charge transfer at high concentrations.

✓ Kinetics of Electrode Processes. II. Influence of Thiourea on the Electrodeposition of Nickel. L. I. Antropov and N. Ya. Poryv (Zhur. Priklad. Khim., 1972, 25, 177-180). — In Russian. The influence of thiourea on the electrodeposition of Ni from heated baths based on the comp.: $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ 200, $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$ 80, H_2BO_3 20, NaCl 10 g/l. has been studied by the methods previously used for Cu cath. (cf. A. and P., *ibid.*, (1), 55; *ibid.*, 22, 681). Addn. of 0.2-0.3 g/l. thiourea increased the cathodic potential at c.d. > 0.5 amp/dm.², but at lower c.d. slight depolarization was observed. The limiting cathodic c.d. (~ 8 amp/dm.²) was unchanged by thiourea. At c.d. < 1 amp/dm.² below the limit, addn. of thiourea led to the prodn. of bright Ni deposits of increased hardness (40% increase for 0.2 g/l. thiourea). The current efficiency was almost unaffected by thiourea, and was 93-95% at the cathode and $\sim 100\%$ at the anode, except for c.d. < 1 or $> 7-8$ amp/dm.²; (under these conditions thiourea was not stable). Photomicrographs of deposits on Co undercoat showed that thiourea reduced the grain size.

—O. V. E. T.

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0



APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0"

ANTROPOV, L. I.

USSR/Chemistry Physical chemistry

Card : 1/1 Pub. 147 - 24/25

Authors : Antropov, L. I.

Title : Hydrogen overextension and the nature of electrochemical processes (Discussion)

Periodical : Zhur. fiz. khim. 28/7, 1336 - 1352, July 1954

Abstract : Various ideas regarding the reaction of cathodic separation of hydrogen and its connection with other electrochemical processes, were discussed. The overextension of H in its relation to metals of the first group, electro-reduction reaction, electro-crystallisation of metals and electro-chemical corrosion of metals, is explained. The magnitude of polarisation and the structure of metallic residues were found to be closely connected with the nature of H-overextension and position of the zero point of the metal, which determine the possibility of inhibiting and activating effects. Seventy-four references: 58 USSR; 6 USA; 5 German; 4 Japanese and 1 Swiss (1924 - 1953). Tables; graphs.

Institution : The Sergo Ordshonikidze Polytechnicum, Novocherkassy

Submitted : March 18, 1954

OGANESYAN, A.S.; ANTROPOV, L.I.

Kinetics of electroreduction of acetone on a mercury cathode.
Dokl. AN Arm. SSR 21 no. 2: 81-85 '55. (MLRA 8:12)

1. Yerevanskiy politekhnicheskiy institut. Predstavleno A.A.
Akopyanov.

(Reduction, Electrolytic) (Acetone)

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000101810019-0

APPROVED FOR RELEASE: 06/19/2000

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USSR/Electrochemistry

B-12

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26314

Author : V.V. Listopadov, L.I. Antropov
 Inst : Novocherkassk Polytechnical Institute. Academy of Sciences of USSR
 Title : Electrical Reduction of Oxalic Acid. I. Influence of Metal Nature on Process of Reduction. II. Influence of Hydrogen Ion Concentration of Process of Reduction.

Orig Pub : Nauch. tr. Novocherkas. politekhn. in-ta, 1956, 34 (48), 87-98; 99-107.

Abstract : I. The part of the point of the zero charge (E_0) of the electrode metal in the process of electrical reduction of $H_2C_2O_4$ (I) was studied. The polarization curves (PC) ($E, \log i$) on Pt, Ni, Hg, Pb, Cd and amalgam Tl (TlHg) were measured in H_2 atmosphere in 0.098 n. H_2SO_4 + 0.2 n. $(NH_4)_2SO_4$ with additions of I (0.00549 to 0.560 M) at pH of 1.16 to 1.40. The influence of the cathode material and I concentration on the efficiency of the electrical reduction (EE) was determined; the shift of the potential (E) at a constant i after the introduction of the addition of I into the solution served as the

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measure of EE. The PC-s for Pt and Ni are lineal in H_2SO_4 solutions and do not alter at the addition of I (after the adjustment for the change of pH). In case of Hg, the lineality of PC is preserved, but a shift of E to the positive side is observed, the shift being the greater, the greater the concentration of I is. Glyoxalic (II), glycolic (III) and tartaric acids are forming at the electrolysis of I solutions on Hg at various E-s. PC-s on Cd, Pb and TlHg in H_2SO_4 solutions consist of two lineal parts; at the addition of I, the inflexions of PC-s practically disappear and a shift of E to the positive side takes place in the region, corresponding to the negatively charged surface. The dependence of the E shift on the I concentration in case of Cd, Pb and TlHg is the same, as in case of Hg. At the electrolysis of I solutions on Cd, Pb and TlHg, II and III are detected in the solutions. The experimental data are described by the equation $E = a + b \log \frac{I}{(1 + gC_R)^\beta}$ (Antropov L.I., Zh. Fiz. khimii, 1950, 24, 1425), where C_R is the volumetric concentration of the adsorbed substance, and a, b, g and β are constants. The conclusion is arrived at, that in case of metals with approximately equal

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(1) well in the range of $1 < \text{pH} < 3.8$. On the basis of the obtained data, a conclusion was arrived at concerning the dependence of the speed of I reduction on the general I concentration and the participation of H^+ ions activated in the double electric layer in the initial action (RZhKhim, 1955, 39819). In the opinion of the authors, the assumption of a retarded joining of non-dissociated molecules of I by electrons (Florionovich G.M., Frumkin A.N., Dokl. AN SSSR, 1951, 79, 997) does not explain the experimental data completely.

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Antropov, L. I.
USSR/Physical Chemistry. Electrochemistry.

B42.

Abs Jour : Ref Zhur - Khimiya, No 7, 1957, 22507.

Author : A. A. Trehunyan, L. I. Antropov.

Inst : Not given

Title : About Overvoltage of Hydrogen on Tungsten.

Orig Pub : Izv. AN Arm.SSR, Fis-matem., Yestestv., tekhn. n., 1956, No 4, 10-24, (res. arm.)

Abstract : Kinetics of electrolytic hydrogen formation on a W-cathode the surface of which was freed from oxides by calcination in an atmosphere of H_2 before the start of the electrolysis were studied at temperatures 25, 40, and 70° in H_2SO_4 solutions (pH 0.10, 1.60 and 3.60). For all examined temperatures and pH the dependence of overvoltage on $\lg I$ is described by the Tafel's equation. The constant b in Tafel's equation does not depend practically on pH and amounts to 0.100-0.103; 0.102-0.107; and 0.120-0.123v. at 25, 40 and 70° respectively; constant a for a W-cathode freed from oxides is by 0.15 v less than the value a for oxidated W-cathode. At a certain given temperature a practically does not depend on pH. Dependences ($\lg I, (I/T)$) at

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ANTROPOV, L.I., (Novocherkassk)

Overvoltage in the electrolytic separation of metals and the
zero points. Usp.khim. 25 no.8:1043-1056 Ag '56. (MLRA 9:10)

(Overvoltage) (Electrometallurgy)

ЛИСТОПADOV, В.В.
LISTOPADOV, V.V., kand. khim. nauk; ANTROPOV, L.I., prof., doktor khim. nauk.

Distillation of sulfuric acid. Trudy NPI 27:207-208 '56. (MIRA 10:12)

1. Kafedra tekhnologii elektrokhimicheskikh proizvodstv Novochoerkasskogo politekhnicheskogo instituta. 2. Starshiy prepodavatel' kafedry tekhnologii elektrokhimicheskikh proizvodstv Novochoerkasskogo politekhnicheskogo instituta (for Listopadov).

(Distillation apparatus) (Sulfuric acid)

AUTHOR
TITLESMIRNOV V.A., ANTROPOV L.I.
Zero Points of Diluted Sodium Amalgams.

20-5-43/67

PERIODICAL

(Nulevyie toohki razbavlennykh amalgam natriya -Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 5, pp 1098-1101 (U.S.S.R.)
Received 7/1957

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ABSTRACT

In the course of the past ten years the important part played by the potential of the zero charge or the metal zero point $MeEq=0$ in connection with various electrochemical processes has been recognized. Therefore the determination of the zero point of diluted amalgams is of considerable interest. Many amalgams have been used for the reduction of organic and anorganic substances. The finding of zero points is rendered difficult in the case of the amalgams of alkali metals by their relatively easy oxidizability and by the rather rapid decomposition of electrolytes by aqueous solution. Besides, the exchange currents between the amalgams and the solution which contain ions of the respective metal, are usually great, and therefore current consumption is necessarily rather high in order that a noticeable potential shift from the equilibrium- or steady value be obtained. This, however, may lead to a change of the upper amalgam layer and to a wrong representation of results. The electrocapillary curves for sodium amalgam in a 1.0 n NaOH solution are shown in table 2. They have a marked maximum which must correspond to the potential of the zero charge of the amalgam of this composition. The position of the maximum of the amalgam is shifted

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Zero Points of Diluted Sodium Amalgams.

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in accordance with the modification of its composition. Comparison of the values for the zero points of all amalgams investigated and for pure sodium, as well as of the values of the surface voltage of the amalgams compared with mercury shows that both the potential of the zero charge of the amalgams and their surface voltage fluctuate most within the domain of the sodium concentration in amalgam of from 0 to 0,0001 mol parts. With a further increase of the Na concentration up to transition from liquid to solid amalgam, the values are changed only slightly. The modification of the zero points of Na-amalgams which develops parallel to its composition, was found to have the same character as the modification of equilibrium potentials. Therefore, the difference between the zero charge potential and the equilibrium potential remains approximately equal in the course of the decomposition of the amalgam. The conservation of the stability of this difference warrants the unchangeability of the surface concentration of the substances to be reduced, as it determines the conditions of the adsorption of organic and anorganic substances on the surface of the amalgam. This is probably the reason for the conservation of certain final reduction products in connection with the application of sodium amalgam, in spite of the fact that potential and composition change in the course of the process of decomposition. A marked change of zero point of mercury on the occasion of going over to diluted amalgams leads us to suppose that also the zero

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points of other metals will change in the course of electrolysis in alkali solutions if they are able to form sodium-metallic surface compounds (lead, zinc, etc.). This circumstance may apparently exercise a certain influence on the development and the direction of electrochemical hydration in alkaline solutions. (With 3 illustrations, 1 table, 19 Slavic references).

ASSOCIATION	Polytechnical Institute "Sergo Ordzhonikidze" Novocherkassk
PRESENTED BY	FRUMKIN A.N., Member of the Academy
SUBMITTED	17.9.1956
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Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 314 (USSR) SOV/137-59-3-7137

AUTHORS: Dionis'yev, S. D., Antropov, L. I.

TITLE: The Effect of Some Additives on the Corrosion of Aluminum in Alkaline Solutions. (Deystviye nekotorykh dobavok na korroziyu alyuminiya v rastvorakh shchelochey)

PERIODICAL: Sb. Kom-t po korrozii i zashchite metallov Vses. sov. nauchno-tekhn. o-v, 1957, Nr 2, pp 94-108

ABSTRACT: The authors investigated the effect of albumin, casein, and sulfite alkalies on the corrosion of Al in alkali by gravimetric and volumetric methods and by means of polarization curves. It was found that the corrosion rate of Al in an 0.03 - 5.0-N NaOH solution is directly proportional to the square root of the NaOH concentration. With an increase in the concentration of NaOH the cathodic process is retarded while the anodic process is accelerated. The corrosion of Al proceeds with a mixed anode-cathode control. Additives slow down the corrosion rate of Al through the retardation of the anodic process. The retardation of the cathodic process is not great because the adsorption of surface-active additives becomes improbable owing to

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The Effect of Some Additives on the Corrosion of Aluminum (cont.) SOV/137-59-3-7137

the shifting of the stationary potential of Al by -0.8 v in relation to the zero point. The additives investigated can be used in alkaline baths for degreasing and etching Al, but are not suitable for inhibiting the dissolution of Al in electrochemical cells. Bibliography: 18 references.

S. G.

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~~АНТРОПОВ, Л. И.~~

ANTROPOV, L.I., doktor khim.nauk, prof.

Development of electrochemical synthesis of organic compounds
in industry. Khim.prom. no.5:272-274 J1-Ag '57. (MIRA 10:12)

1. Novocherkasskiy politekhnicheskii institut imeni S. Ordzhonikidze.
(Electrochemistry, Industrial)
(Organic compounds)

ANTROPOV, L. I.

AUTHOR: Semchenko, D. P., Professor 3-1-17/32

TITLE: The Novochoerkassk Polytechnic Institute is Fifty Years Old
(Novochoerkasskomu politekhnicheskomu institutu - 50 let)

PERIODICAL: Vestnik Vysshey Shkoly, 1950, # 1, pp 54-57 (USSR)

ABSTRACT: The article contains a history of the 50 years of existence of the Novochoerkassk Polytechnic Institute, which was founded in October 1907 under the name of Don Polytechnic Institute (Donskoy politekhnicheskoy institut).

The institute was repeatedly reorganized. In 1930, it served as a basis for a number of new institutes, which were soon transferred to other places: The Aviation Institute to Khar'kov, a part of the Metallurgical Institute to Ordzhonikidze, another part to Dnepropetrovsk, and the Institute of Agricultural Machine Construction to Rostov-na-Donu.

In 1933, the technical vuzes, that had remained in Novochoerkassk, were united into the Novochoerkassk Industrial Institute, but in 1948 the scope of the institute was expanded and it was renamed polytechnic institute.

During WW II, 2,000 of its students and teachers left for the front. The damages to the institute caused by the 7-months occupation were restored only in 1950.

There are at present 10 faculties: The mining, mining-

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